

ABSTRACT

A diamond foam article comprises diamond deposited material on a substrate having an open contiguous structure at least partially filled with a filler material.

Methods for forming a diamond foam article comprise providing a foam substrate;

- 5 preparing the foam substrate for diamond deposition; depositing diamond material on the foam substrate by one of several diamond deposition methods; and at least partially filling the diamond foam article with a filler material. Diamond foam articles are bonded to other components.